STUDY

Economic Services Division
Quebec Region

Fisheries and Oceans · Pêches et Océans ·

Canada

THE MARITIME FISHING INDUSTRY IN RELATION TO SOCIO-ECONOMIC CONDITIONS ON THE NORTH SHORE

by
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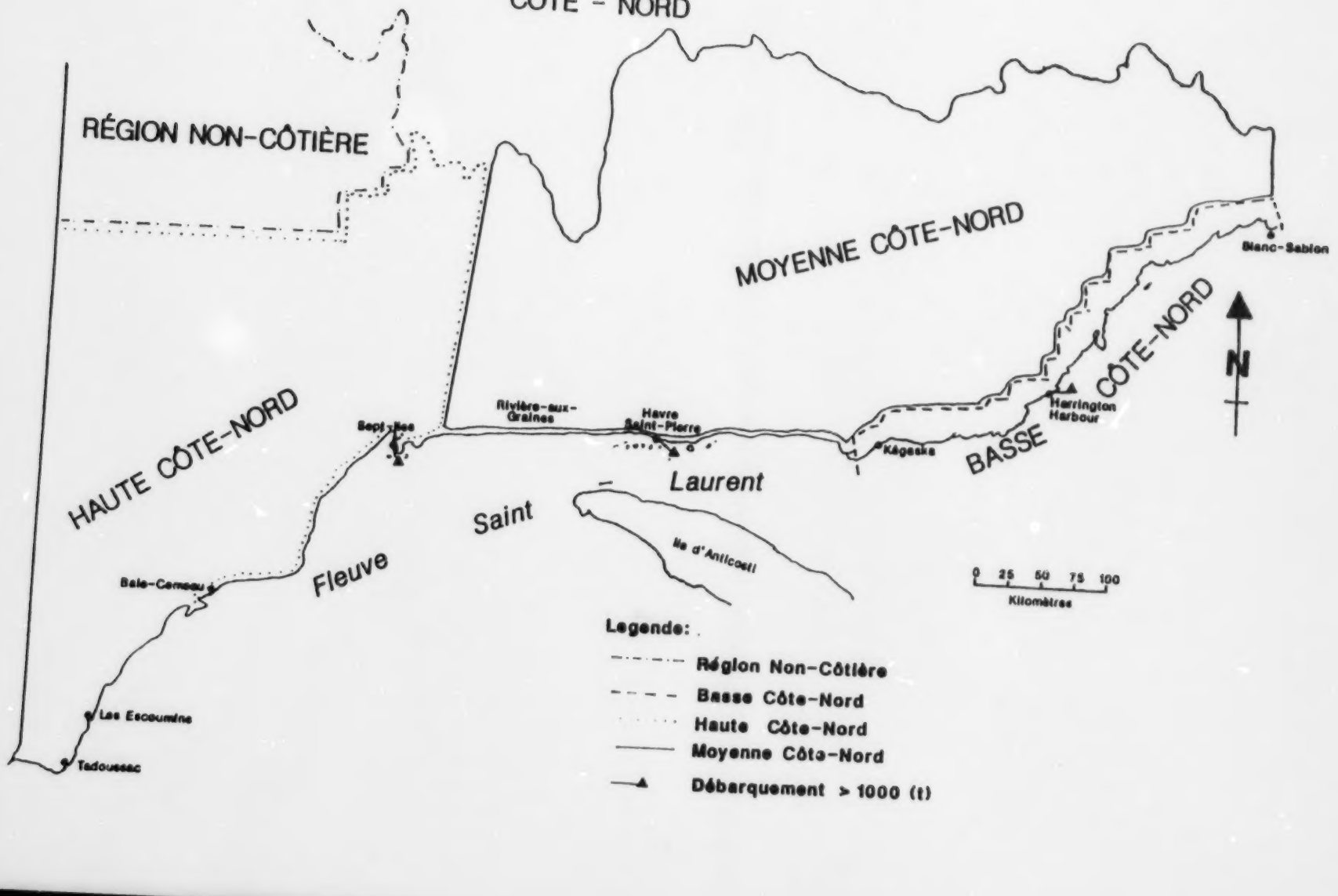
EXECUTIVE SUMMARY

The summary table which follows will serve as an executive summary. It contains social and economic information on the North Shore and its sub-regions. The last section of the table compares Quebec's three maritime regions.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Havre Saint-Pierre
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SOCIO-ECONOMIC CHARACTERISTICS

	NORTH SHORE	UPPER NORTH SHORE	MIDDLE NORTH SHORE	LOWER NORTH SHORE
Population	- Between 1976 and 1986 the population dropped by 11.7%. - The population is aging more rapidly than in Quebec as a whole.	- 95 417 (83.3% of the North Shore population overall).	- 7 741 (6.5% of the population).	- 4 981 (4.2% of the population).
Labour Market	- The unemployment indicator is higher than in Quebec as a whole (5.8%). - Jobs are created more slowly than in the province overall. - Jobs are seasonal.	- No information available.	No information available.	- No information available.
Income	- Disposable personal income is $800 below the Quebec average. - Income is growing more slowly than in the province overall.	- No information available.	- No information available.	- No information available.
Importance of Fishing	- The fishing industry accounts for 8.8% of jobs. - The primary sector is the biggest employer in the fishing industry.	- Only 4.7% of jobs are connected with the fishing industry. - The secondary sector is the biggest employer.	- The fishing industry accounts for more than 20% of jobs. - The primary sector is the biggest employer.	- The region depends heavily on the fishing industry, which accounts for 80% of all jobs. - The primary sector is the biggest employer. - Accounts for 41% of jobs in the North Shore fishing industry.

THE FISHING INDUSTRY: PRIMARY SECTOR

	NORTH SHORE	UPPER NORTH SHORE	MIDDLE NORTH SHORE	LOWER NORTH SHORE
Landings	- Since 1984, the value of landings has doubled. - Catches consist mainly of crustaceans and molluscs (40% of Québec output). - Catches of crustaceans and molluscs are increasing; catches of groundfish are decreasing.	- This area has the highest volume of catches on the North Shore. - Catches consist mainly of groundfish. - Since 1984, catches of groundfish have increased.	- This area has the biggest catches by value on the North Shore. - Catches consist mainly of crustaceans and molluscs. - Since 1984, catches of crustaceans and molluscs have increased.	- This area has the smallest catches by value on the North Shore. - Catches are divided equally between groundfish and crustaceans and molluscs. - Since 1984, catches of groundfish have been declining steadily.
Employment	- The primary sector is the industry's biggest employer. - Since 1985, the number of fishermen and their helpers has declined.	- Accounts for 28.2% North Shore fishermen.	- The primary sector is the industry's biggest employer. - Accounts for 18.4% of North Shore fishermen.	- The primary sector is the industry's biggest employer. - Accounts for 53.5% of North Shore fishermen.
Characteristics of the Fleet	- Small longliners account for 60% of vessels in the fleet. - In 1987, 63% of all fishing vessels registered in the region were active. - 7.8% of the fleet harvests 44% of landings, by value; 76% of the fleet accounts for 17.8% of landings, by value. - Since 1985, cash income for the three categories of fleets has almost decupled.	- Small longliners account for two thirds of vessels in the fleet. - 25% of active vessels on the North Shore are located here. - Resource distribution is similar to the regional pattern. - Over three years, the cash income for small longliners increased from $201 to $3 222.	- Small longliners, lobster boats and whelk boats account for three quarters of the vessels in the fleet. - 16.4% of active North Shore vessles are located here. - Resource distribution is similar to the regional pattern. - Over three years, the cash income for crabbers (16.6% of the fleet) increased from $10 600 to $124 388.	- Small longliners account for 64% of vessels in the fleet. - 57.4% of active vessels on the North Shore are located here. - Resource distribution differs from the regional pattern. - The cash income for crabbers (20% of the fleet) increased from $19 to $40 143 between 1985 and 1987.

THE FISHING INDUSTRY: SECONDARY SECTOR AND MARKET

	NORTH SHORE	UPPER NORTH SHORE	MIDDLE NORTH SHORE	LOWER NORTH SHORE
Plant Output	- Since 1984, the turnover of processing plants has doubled. - Processed crab accounts for 40.7% of sales (crab sections are the main product). Profit margins on this product have been increasing. - Processed cod accounts for 14.1% of sales. Wet salted cod is the main product. - Shrimp accounts for 20% of sales; deveined shrimp is the main product.	- No information processed.	- No information processed.	- No information processed.
Employment	- Between 1985 and 1987, the number of jobs in processing rose by 34.5%. - In 1987, the fish processing sector employed 1 700 people.	- Since 1985, nearly 500 jobs have been created in the processing sector. - In 1987, the fish processing sector employed 821 people.	- Since 1985, the processing sector has lost more than 160 jobs. - In 1987, fish processing employed fewer than 100 people.	- Since 1985, 55 jobs have created in the processing sector. - In 1987, nearly 600 people were working in processing.
Fish Market	- Quebec exports nearly 70% of its marine products; the international market is the key to the future. - Past price increases for groundfish have reduced purchases by American consumers. Inventories have grown large. Prices currently paid to producers are dropping. - Crab sales to Japan appear to be steady. Japanese monetary policy and competition from other suppliers such as China could affect the market. - The shrimp market is changing. Substitute products such as aquicultural shrimp are serious competitors.			

CHARACTERISTICS OF THE MARITIME REGIONS

	Gaspé	North Shore	Magdalen Islands
Population	- In 1986, the population of the region totalled 220 325. - Since 1981, the population has decreased by 1.4%. - The population is aging more rapidly than in the province overall.	- In 1986, the population of the region totalled 105 070. - Over the past 10 years, the population has decreased by 11.7%. - The population is aging more rapidly than in the other maritime regions.	- In 1986, the population of the region totalled 14 532. - Since 1976, the population has grown by 7.5%. - The population is aging less rapidly than in the province overall.
Labour Market	- In 1987, the unemployment indicator was 7.4%. - Employment has increased by 2.3% over the past three years. - Between the first and third quarters of 1987, 51.4% of jobs were seasonal.	- In 1987, the unemployment indicator was 5.8%. 14.4%. - Employment has increased by 0.5% over the past three years. - Between the first and third quarters of 1987, 44.8% of jobs were seasonal.	- In 1987, the unemployment indicator was - Employment has risen significantly, i.e. by 5.1% over the past four years. - Between the first and third quarters of 1987, 54.3% of jobs were seasonal.
Income	- Per capita disposable income averaged $9 454 in 1987. - Income grew by 32%, more rapidly than in the province overall.	- Per capita disposable income averaged $11 400 in 1987. - Income grew by 14%, more slowly than in the province overall.	- Per capita disposable income averaged $10 000 in 1987. - Income grew by 94%, much more rapidly than in the province overall.
Importance of Fishing	- The fishing industry employs 6 786 people, accounting for 7.1% of all jobs. - The fishing fleet comprises 863 vessels. - The region accounts for 54% of all landings in Quebec, by value.	- The fishing industry employs 3 898 people, accounting for 8.6% of all jobs. - The fishing fleet comprises 732 vessels. - The region accounts for 25% of all landings in Quebec, by value.	- The fishing industry employs 2 501 people, accounting for 34.4% of all jobs. - The fishing fleet comprises 440 vessels. - The region accounts for 13% of all landings in Quebec, by value.
Other Observations	- The road and highway network covers the entire region. - A research institute and universities and Cegeps offering marine studies are located in the region.	- The road and highway network covers part of the region; the remainder is accessible by boat and airplane. - No research institutes or educational institutions devoted to marine studies are located in the region.	- The islands are accessible by boat or airplane. The road and highway network covers all of the islands. - No research institutes or educational institutions devoted to marine studies are located in the region.

List of Appendices

Appendix 1: Profiles of Various North Shore Fishing Fleets in 1987

Appendix 2: Glossary

PREFACE

This information document describes changes in the fishing industry at the regional level. It deals with socio-economic aspects of the sector in Quebec's maritime regions in order to assess the sector's current and future importance in regional economies.

Statistical information on the Quebec fishing industry was provided by the Quebec region Statistics and Informatic Division of the federal Department of Fisheries and Oceans. Manpower estimates in the fishing industry were made using preliminary compilations available from the division.

This report could not have been published without the collaboration of numerous concerned parties and agencies working in Quebec's maritime regions. They provided valuable information on the sectors covered in the study. In particular, we would like to thank: Édith Lachance, Jean Boucher, Bruno Lévesque (Quebec region Statistics and Informatic Division, federal Department of Fisheries and Oceans), Louis-Mari Rouleau, André Lepage (Rimouski and BaieComeau offices of the ministère de la Main-d'oeuvre et de la Sécurité du Revenu du Québec), Gilles Provost, Gérald Dubé (Rimouski and Chicoutimi offices of the federal Department of Employment and Immigration), Jean-Guy Coté (Rimouski office of the Office de planification et de développement du Québec), Nicole Benoit (Montreal office, Statistics Canada), and Lionel Corriveau (Hydrographic Service, Maurice Lamontagne Institute, Department of Fisheries and Oceans).

We would also like to thank the Bureau de la statistique du Québec, staff in the Statisics and Informatic Division, Economic Services Branch, and the Development Division of the DFO, and anyone else who collaborated directly or indirectly on this study.

G. Daniel Caron, Chief
Economic Services Branch
Department of Fisheries and Oceans
Quebec region, September 1988

Table of Contents

PREFACE

1. Introduction..... 1

1.1 Territory..... 2

1.2 Population..... 3

1.3 Labour Market..... 5

1.4 Income..... 6

1.5 Importance of Fishing in the Region..... 7

2. Observations on the Fishing Industry..... 10

2.1 Primary sector..... 10
2.1.1 Landings..... 10
2.1.2 Fishermen and their helpers..... 13
2.1.3 North Shore fishing fleet..... 13

2.2 Secondary sector..... 18
2.2.1 Output..... 18
2.2.2 Plant workers..... 21

2.3 Fish Market..... 22

2.4 Government Intervention and Future Policy..... 25
2.4.1 Past Intervention..... 25
2.4.2 Current situation and new policy 27

2.5 Other observations..... 29

3. Comparison of Quebec's Maritime Regions..... 30

3.1 Population..... 30

3.2 Labour Market..... 31

3.3 Income..... 32

3.4 Quebec Fishing Industry..... 33

3.5 Importance of Fishing within the Regions..... 34

CONCLUSION

1. INTRODUCTION

"The Quebec fishing industry accounts for less than one percent of GNP; fishermen are at the bottom of the ladder in Quebec. Civil servants are as numerous as fishermen. It would be more economical to close Quebec's maritime regions than to keep residents there." Who has not heard or seen this type of comment? People whose daily lives are devoted to fishing must, sooner or later, come to grips with statistics which only partially describe the situation.

Residents of the North-Shore region engage in fishing, but to what extent? What would happen to the region without the fishing industry? This report examines socio-economic aspects of the region.

This report is not a tourist guide, but is intended to be readable; as a result, it contains few tables. Readers wishing to study the matter further could consult the tables in "The Quebec maritime fishing industry in relation to socio-economic condition in the maritime region: statistical supplement."

1.1 Territory (see map)

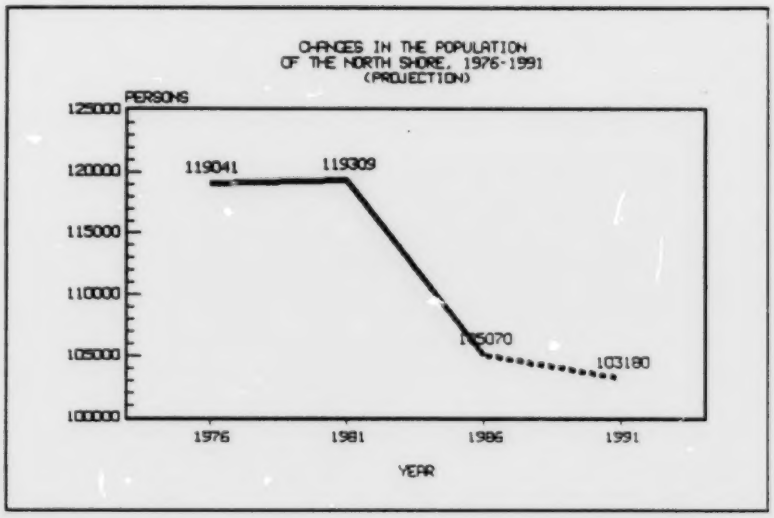
The North Shore territory covered by this study extends from Tadoussac to Blanc-Sablon. Those who are unfamiliar with the geography of the region will find these indications somewhat vague. Because this report focuses on Quebec's maritime regions, the subdivision selected is based on landing ports along the North Shore, i.e. Tadoussac is the westernmost port as defined by the DFO and Blanc-Sablon is the easternmost port, close to the Labrador border. This territory has been divided into three coastal sub-regions and one non-coastal sub-region: Upper North Shore, Middle North Shore, Lower North Shore, and the non-coastal region (Caniapiscau).

It should be noted that for statistical purposes, Sept-Iles is deemed to be part of the Upper North Shore (see map). Moreover, only the coastal regions will be examined in detail. Readers wishing to compare DFO subdivisions and census or RCM divisions, or simply ascertain which communities are part of the subdivisions selected should refer to Appendices 1 and 2 in the collection of tables.

The North Shore has over 860 km of coastline and covers more than 290 000 km^2.

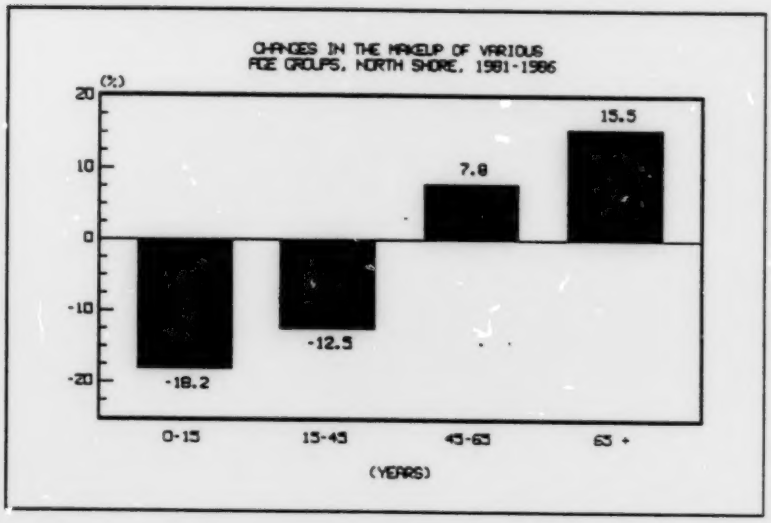
1.2 Population

Graph 1:



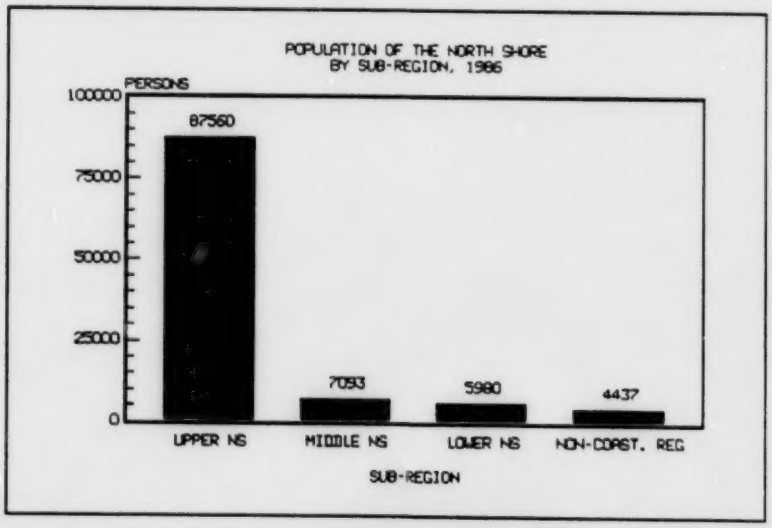
In 1986, there were more than 105 000 inhabitants on the North Shore, or 1.6 percent of the overall population of Quebec. Over the past five years, the region's population has changed markedly. After rising slightly between 1976 and 1981, it has declined since then. More than 14 500 people have left the region since 1981, an 11.7 percent reduction. Unfavourable economic conditions and plant closings in the mining and forest products sectors are responsible for the departures. Demographers predict that the population will continue to decrease until 1991, although less dramatically than it has until now. During the period in question, the population of Quebec as a whole rose by 1.5 percent.

Graph 2:



A closer examination of age groups reveals that the population is generally aging more rapidly than the population of the province overall. This trend has been accentuated by the exodus of residents under 45. During the period in question, more than 10 000 people in this age group left the territory.

Graph 3:

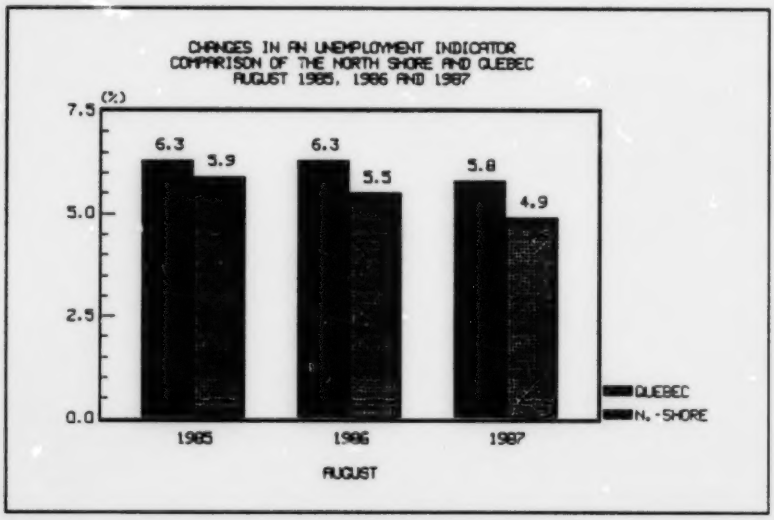


The Upper North Shore region is by far the most populous; it accounts for more than 83.3 percent of the overall population of the region.

1.3 Labour Market

As the unemployment rate for the territory under study was not available, we used an unemployment indicator, which serves as a yardstick for unemployment (see glossary concerning calculation methods).

Graph 4:



The unemployment indicator fell from 6.3 percent in August 1985 to 5.8 percent in August 1987. The labour market appears to have improved, as it did in Quebec overall, although to a lesser extent. The unemployment indicator dropped 0.5 percent on the North Shore, compared with 1.0 percent for the province as a whole.

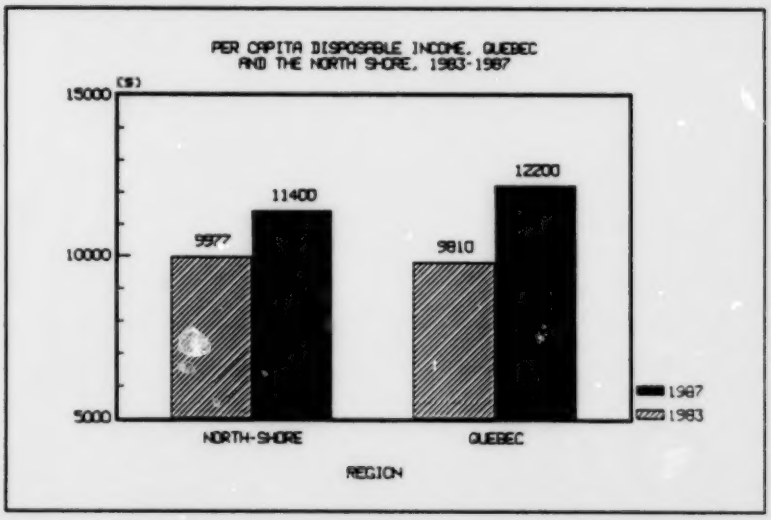
During this period, the population able to work declined; the number of unemployment insurance beneficiaries also decreased, which suggests that the upswing in employment in the region is artificial. It appears to be attributable to the departure outside the region of the unemployed. On the basis of these observations, the labour market has deteriorated. However, it should be noted that the number of Norht Shore social aid beneficiaries (also unemployed) declined by 6.7 percent between the first quarter of 1986 and the first quarter of 1987.

The labour market on the North Shore is, of course, seasonal. In Quebec as a whole, the number of unemployed dropped by 30.0 percent between the first and third quarters of 1987, compared with 44.8 percent on the North Shore.

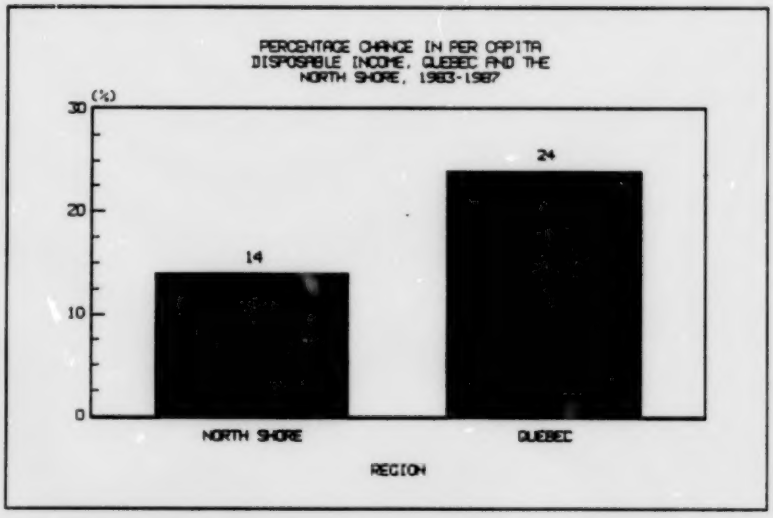
1.4 Income

Graph 5:

In 1987, per capita disposable income on the North Shore was $800 lower than the average for Quebec as a whole, i.e. $11 400 compared with $12 200.



Graph 6:



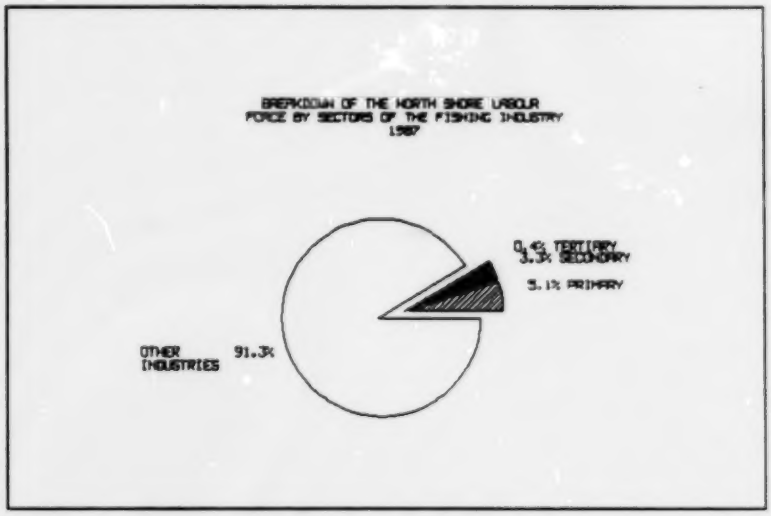
In 1983, the region recorded higher per capita disposable income than Quebec as a whole; however, by 1987 the situation had changed. Starting in 1983, disposable income on the North Shore increased by only 14.0 percent, compared with 24.0 percent for the province overall.

1.5 Importance of Fishing in the Region

Numerous variables may be considered to establish the importance of one sector of the economy in a given region. This study emphasizes the number of jobs in the fishing industry. What portion of the labour force earns income from a job related to the primary, secondary and tertiary sectors of the fishing industry? This section will endeavour to answer that question.

To what extent does the economy of the North Shore rely on fishing?

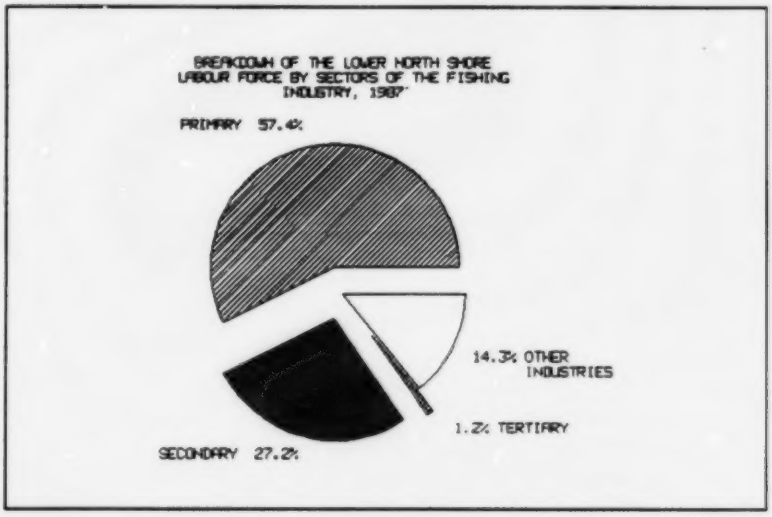
Graph 7:



This figure reveals the importance of the fishing industry on the North Shore. Only 8.8 percent of the labour force there directly earns a living from fishing, i.e. 3 977 people, of whom 86.7 percent live on the Upper and Lower North Shore. More than half of the jobs are in the primary sector. While the fishing industry encompasses the entire territory, it is concentrated above all on the Lower North Shore.

The fishing industry is as important to the Lower North Shore as the mining industry is to the Abitibi region.

Graph 8:


BREAKDOWN OF THE LOWER NORTH SHORE LABOUR FORCE BY SECTORS OF THE FISHING INDUSTRY, 1987
PRIMARY 57.4%
14.3% OTHER INDUSTRIES
1.2% TERTIARY
SECONDARY 27.2%

Contrary to the North Shore as a whole, where fishing is of relatively limited importance, it predominates on the Lower North Shore. More than 85.0 percent of the labour force, i.e. 1 853 people, is directly employed by the fishing industry. Some 57.4 percent of residents able to work are employed by the primary sector. It is no coincidence that the fishing industry is of such importance in the sub-region. The geographical location of the Lower North Shore, its topography interspersed with waterways and its boreal-northern climate make it ideal for fishing.

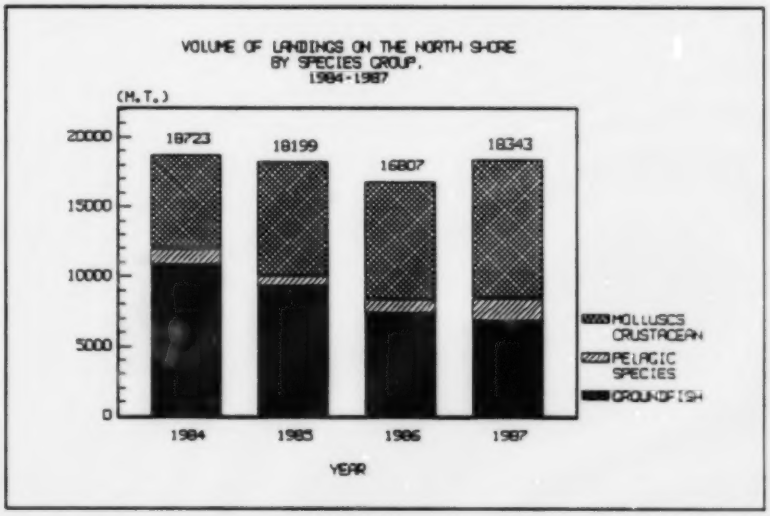
2. OBSERVATIONS ON THE FISHING INDUSTRY

2.1 Primary Sector

2.1.1 Landings

Crustaceans and molluscs ranks first among the species landed

Graph 9:

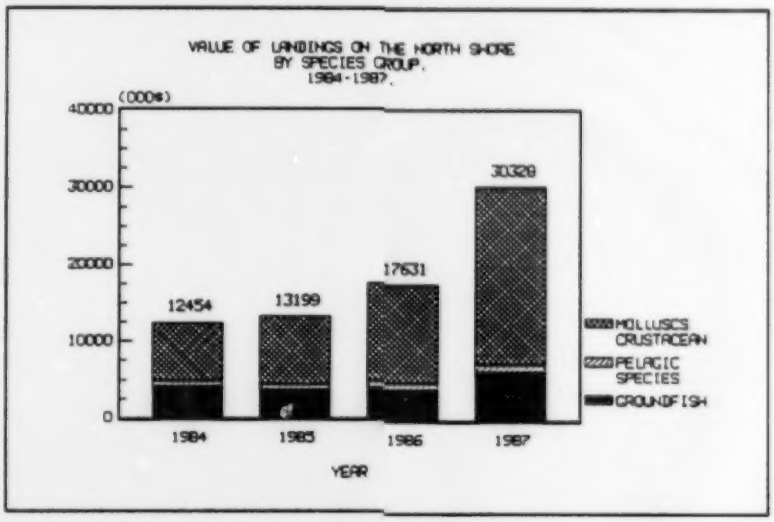


Crustaceans and molluscs (consisting primarily of crab, shrimp, scallops and whelks) are the most heavily harvested species. Landings of these species account for 54.0 percent of all landings in the region. In 1987, the North Shore produced roughly 40.0 percent of the total volume of crustaceans and molluscs caught in Quebec. These landings have increased constantly since 1984.

Landings of groundfish have been declining steadily.

Since 1985, catches of cod on the North Shore have dropped by 49.6 percent, to 4 369 t. At the same time, catches of Greenland halibut (turbot) have increased appreciably in the Upper North Shore subregion. However, such increases have not been sufficient to offset the decline in catches of cod, especially on the Lower North Shore. Consequently, overall landings of groundfish continue to drop.

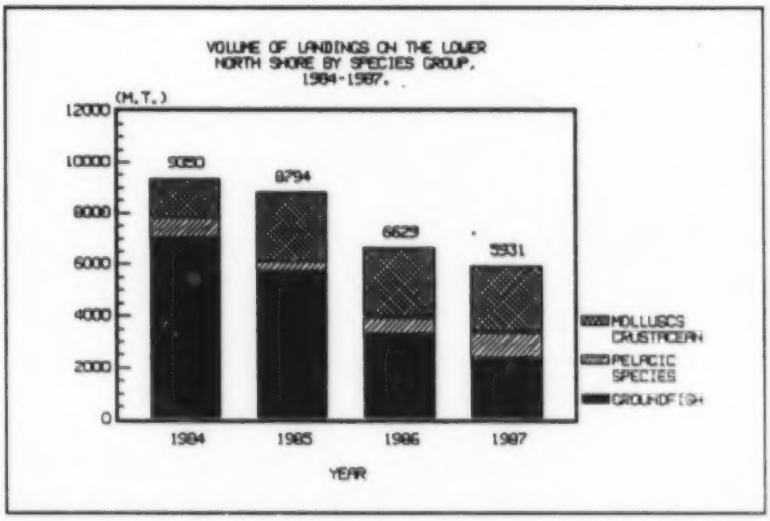
Graph 10:



In 1987, total landings on the North Shore were worth more than $30.0 million. Since 1984, the value of landings has more than doubled, due to higher market prices and bigger landings of profitable species such as crab, scallops and whelks.

Landings of groundfish on the Lower North Shore are dropping precipitously.

Graph 11:



Since 1984, catches of groundfish have continued to decline on the Lower North Shore. Cod is by far the most heavily harvested species in the sub-region. The downturn in catches of cod noted throughout the Gulf has more markedly affected landings on the Lower North Shore than those elsewhere.

2.1.2 Fishermen and their helpers

The primary sector is the biggest employer in the North Shore fishing industry.

In 1987, there were 2 320 fishermen and their helpers on the North Shore, or 34.5 percent of all commercial fishermen in Quebec. Between 1985 and 1987, the number of jobs varied somewhat, especially in the Upper and Middle North Shore sub-regions.

Most North Shore fishermen live on the Lower North Shore.

The Lower North Shore accounts for more than 50.0 percent of the fishermen and their helpers in the region; the Middle North Shore has the fewest fishermen.

2.1.3 North Shore fishing fleet

In 1987, 732 of 1 166 fishing vessels registered were active (see table in Appendix 1). The boats are organized into nine fleets; the classification is based upon various factors such as the species fished, the technique employed, the boat's length and the fishing zone. Because of its special characteristics, each fleet can seek particular species. Within the fleets, longliners under 35 feet in length (435 vessels) account for 60.0 percent of active vessels.

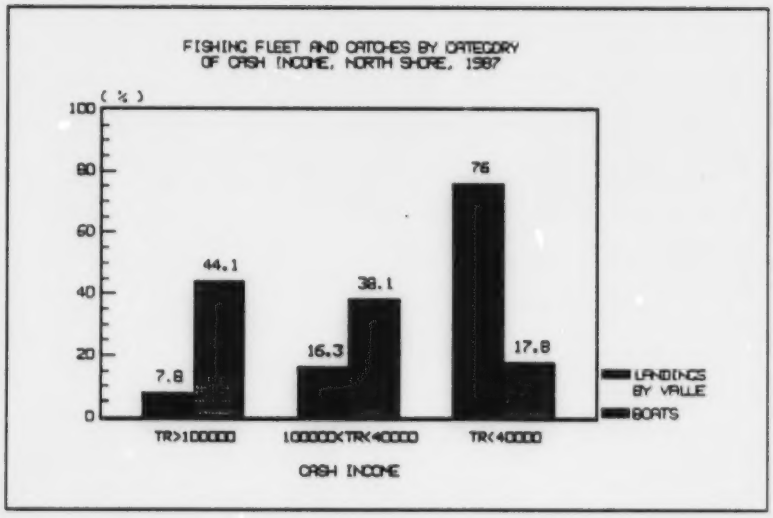
All of the fleets do not provide the same income for their captainowners. For example, captain-owners of crabbers fishing in the Estuary and the Middle North Shore, shrimpers and trawlers earn, on average, more than $124 000. The captain-owners of longliners under 35 feet in length earn an average of $3 222.

Breakdown of catches of various fleets

The breakdown of catches of various fleets on the North Shore is based on three categories of pre-tax salaries earned by captain-owners. It should be noted that captains' salaries have been estimated according to Quebec averages. For a given fleet, the estimated salary may vary because of conditions in the sub-region. The three categories are: fleets in which the owner receives a salary of $100 000 or more; those in which the owner receives between $40 000 and $100 000; and those in which the owner receives less than $40 000. Each of these categories includes the following fleets:

TR≥ $100 000	$100 000 >TR > $40 000	TR≤ $40 000
Trawlers	35' - 50' longliners	Lobster boats
Shrimpers	LNS crabbers	Longliners
Estuary crabbers	Scallopers	under 35'
		Whelk boats

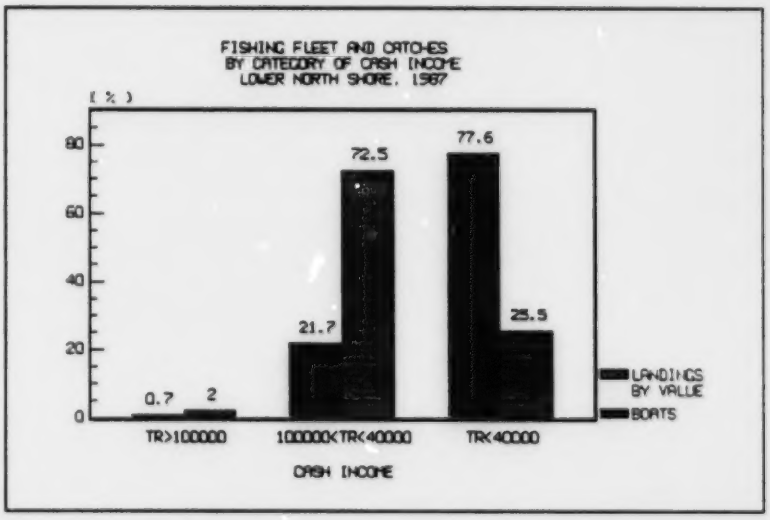
Graph 12:



Fleets whose owners earned more than $100 000 accounted for 57 vessels, or 7.8 percent of the fleet. These owners earned nearly $10.8 million of the $24.5 million (44.1 percent of landed value) generated by landings of fish and crustaceans in the region.

Fleets whose owners earned between $40 000 and $100 000 included 119 boats (16.3 percent of the fleet); their catches were worth $9.3 million or 38.1 percent of overall landings, by value. Fleets whose owners earned less than $40 000 accounted for 556 vessels or 76.0 percent of the fleet; they landed $4.4 million worth of fish and crustaceans, or 17.8 percent of all landings, by value. The owner's average salary was $5 241. Income distribution patterns are fairly similar from one North Shore sub-region to the next.

Graph 13:



However, fleets located on the Lower North Shore whose owners earned between $40 000 and $100 000 took the lion's share; they included 89 vessels, most of which are crabbers, and accounted for 72.5 percent ($6.7 million) of income generated by landings.

1987: an exceptional year for fishermen

Changes in the cash income of each category of fishing fleet meant that 1987 was a prosperous year. In only one year, the income of each category more than doubled on the North Shore. For example, the income of Lower North Shore crabbers in the $40 000 to $100 000 income bracket jumped from $6 782 in 1986 to $41 753 in 1987, due mainly to a sudden surge in marine product prices.

Renewal of the fleet and young fishermen

The application of quotas on the number of commercial fishing permits and an increase in marine product prices in recent years have considerably enhanced the value of fishing permits. Moroever, changes in the conditions under which governments provide financing have made it harder to renew fleets. Young fishermen are likely to experience appreciable financial pressure, similar to that encountered by young farmers over the past 10 years.

2.2 Secondary Sector

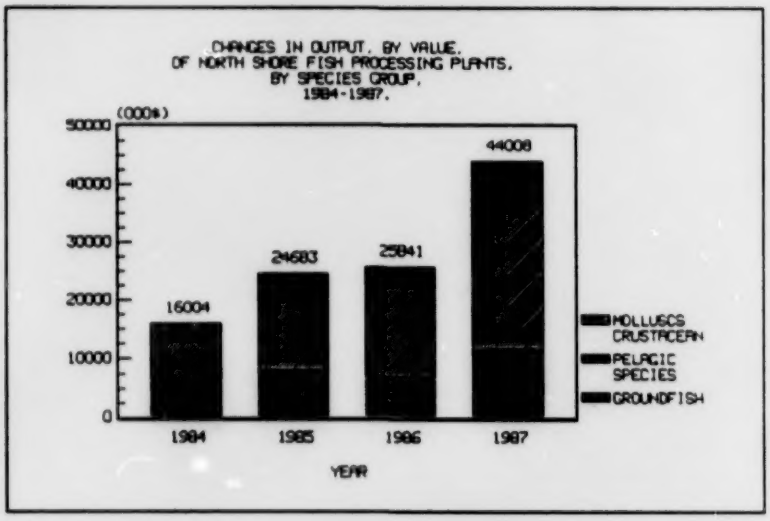
2.2.1 Output

Within four years, the turnover of fish processing plants more than doubled.

Catches landed in 1987 were sold to 18 buyers and processed by 31 plants on the North Shore. Since last year, seven buyers have withdrawn from the fishing business.

Graph 14:

Between 1984 and 1987, the value of fish processed more than doubled, as a result of higher market prices and bigger landings of profitable species such as crab, scallops and whelks.



Processing of groundfish masks a substitution of species.

Graph 14 reveals that, since 1984, groundfish production has fluctuated. During this time, wet salted cod found mainly on the Lower North Shore accounted for 35.4 percent of the region's total sales.

At present, this production accounts for no more than 6.6 percent of the plants' turnover. During the same period, increasing quantities of other species such as turbot and Canadian plaice have been processed, more than offsetting the sharp decline in the processing of cod. The Upper North Shore has benefited most from this trend.

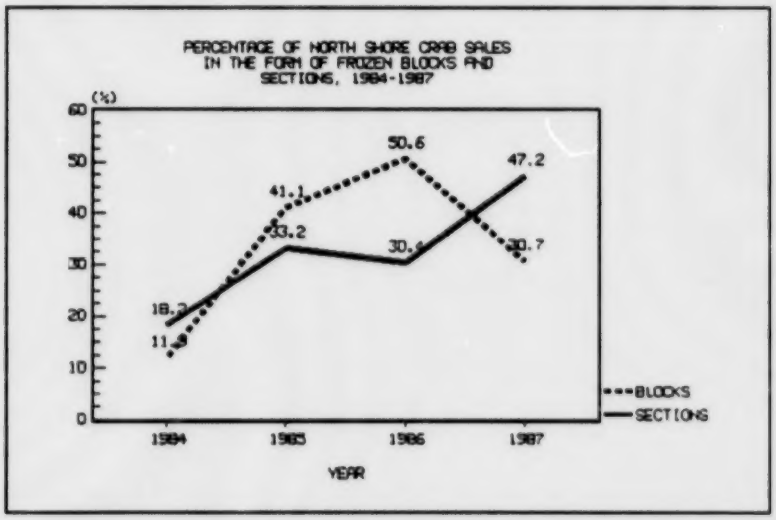
Snow crab is clearly the leading species processed on the North Shore.

Although shrimp and cod account for 20.0 percent and 14.1 percent, respectively, of all sales on the North Shore, crab accounts for nearly one half of such sales. In 1987, 40.7 percent of output, by value, in the region was centred on the processing of crab.

While current crab production by value is significant on the North Shore overall, it has fallen by 9.4 percent in relation to the preceding year, because of a drop in landings.

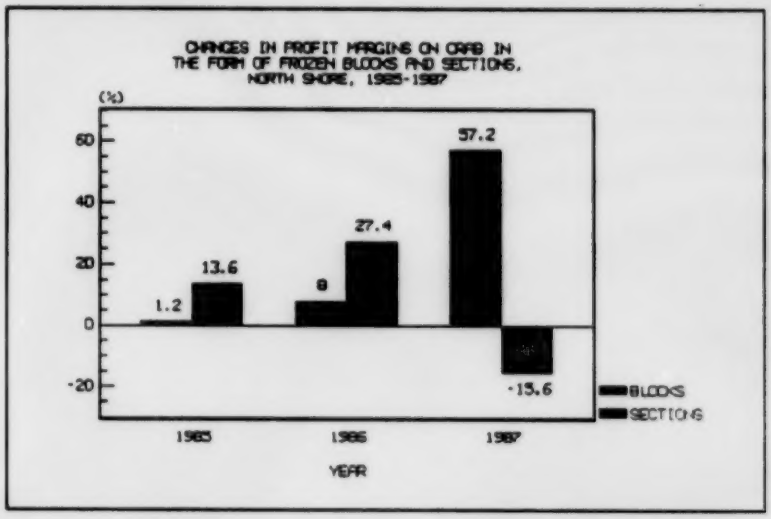
Graph 15:

In 1984, crab was sold above all without processing; today, plants are processing more of it: 78.0 percent of crab is sold in the form of frozen blocks and sections. In addition, over the years, the



production of frozen sections has outstripped the production of blocks, as a result of strong demand from the Japanese market. Does this trend benefit the industry?

Graph 16:

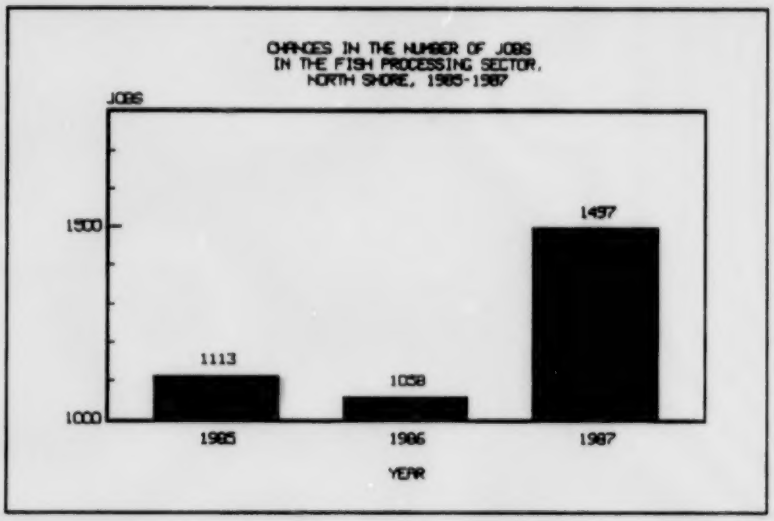


Profit margins on frozen sections have risen constantly; in 1987, a 57.2 percent increase was noted. Profit margins on frozen blocks have fallen by 15.6 percent. In economic terms, would it not be more advantageous to process frozen crab sections? However, such processing requires less manpower and plant workers would suffer.

2.2.2 Plant workers

The processing sector is becoming increasingly important on the North Shore.

Graph 17:



In 1987, 1 497 people were working in the fish processing sector on the North Shore; the number of jobs increased by 34.5 percent between 1985 and 1987, despite a downturn in employment in 1986. Employment is directly affected by landings and the extent of processing which the product requires.

The Upper North Shore accounts for more than 50.0 percent of jobs in the processing sector.

Between 1985 and 1987, the number of processing jobs in this sub-region more than doubled, essentially because Alipêche launched its operations. During the same period, processing jobs increased by 10.3 percent on the Lower North Shore; however, the upswing only occurred in 1987. The opposite is true on the Middle North Shore, where processing jobs have declined constantly since 1985, for a cumulative decrease of 65.0 percent. Two large firms trimmed staff appreciably during this period.

Little processing occurs on the Middle North Shore.

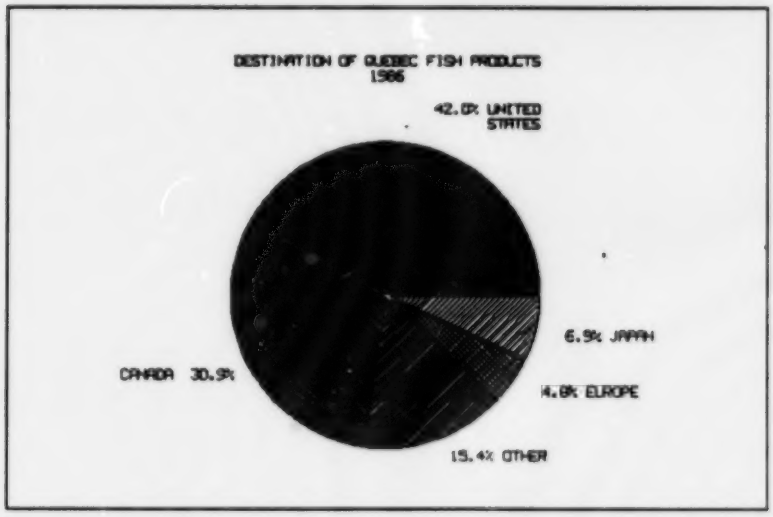
The Middle North Shore accounts for 31.7 percent of overall landings in the region but only 6.0 percent of processing-related jobs. The bulk of catches are taken to Sept-Îles and Baie-Trinité for processing.

2.3 Fish Market

All industries are affected by consumers or market trends. Growth in the fishing industry in recent years is attributable, above all, to more widespread consumption of fish. Fluctuating exchange rates and the availability of stocks have also affected the market, but it is ultimately the consumer who decides whether or not to buy. The future of the fishing industry depends on consumer behaviour. Who consumes Quebec fish products?

Quebec: An exporter of fish

Graph 18:



Quebec exports its fish products. According to Statistics Canada, nearly 70.0 percent of the province's output is sold abroad: 42.0 percent is exported to the U.S., 6.9 percent to Japan, and 4.8 percent to Europe. Fresh and frozen cod is sold on the Boston market; salted dried cod is sold in the U.S., Portugal and Puerto Rico. Crab is exported to Japan and the U.S.; lobster is shipped to the U.S. and Europe.

Groundfish

Steep price increases on the market in recent years have affected purchases by American consumers; consequently, they have sought more economical species or other sources of protein such as chicken and pork. This trend has resulted in increased inventories in the U.S., e.g. a 165.0 percent increase in frozen blocks of cod in July 1988 and markedly lower prices. This situation has already affected Quebec producers, who now find themselves with large inventories. Will this trend continue? Will it disturb the Quebec groundfish fishing industry? Only time will tell.

Crab

Japan, which is the world's largest importer of crab, dominates this market. The country has experienced significant economic growth in recent years and its currency has appreciated markedly. Consequently, prices on the market appear stable.

However, other suppliers such as China, the world's foremost producer of crab, are gaining ground in the market. The Japanese government is endeavouring to apply new monetary policies to curb the appreciation of its currency. Could these variables alter current trends with regard to prices?

Shrimp

The shrimp market has also fluorished in recent years, although this trend now appears to be abating. Aquicultural production of shrimp the world over is altering traditional price-setting methods. The markets at which Quebec shrimp are aimed are not the same as those for aquicultural shrimp. When confronted with less expensive products, will consumers continue to opt for northern shrimp? Will Quebec producers be able to maintain their place on a market offering more and more substitutes?

2.4 Government Intervention and Future Policy

2.4.1 Past Intervention

For a long time, the Quebec fishing industry appeared to be losing ground. Aging fishing fleets were relatively unproductive, processing plants were outmoded, and service infrastructures inappropriate (Canada-Quebec Agreement, 1987-1990). Consequently, output has been very uneven, and productivity has been wanting. The federal and provincial governments intervened to revive the industry.

To this end, government initiatives have centred on increasing catches and processing capacity and improving the quality of products.

Catches: An aging, unproductive, poorly equipped fishing fleet

The ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Quebec and the DFO invested $5.4 million between 1980 and 1987 to rebuild the North Shore fishing fleet, consisting of more than 740 boats under 35 feet in length and 80 boats over 35 feet built during the past eight years.

Fishing infrastructures: Inappropriate services which curb the productivity of the fleet

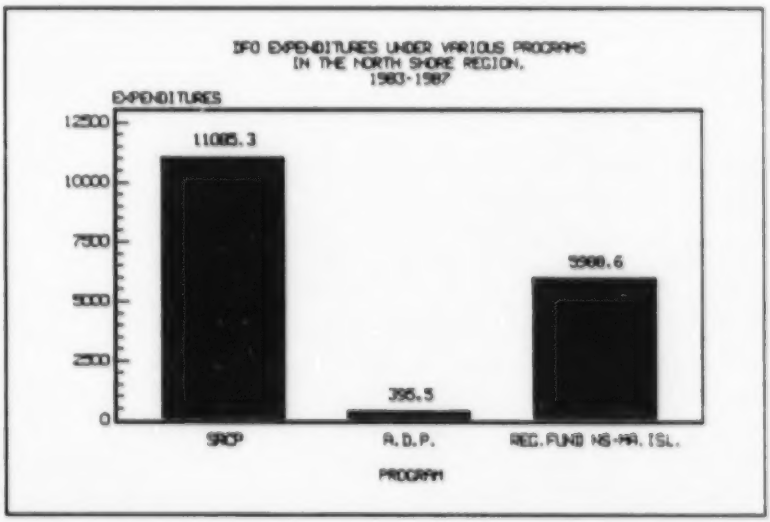
To take but one example, the DFO invested $11. million under the Special Recovery Capital Projects Program (SRCP Program) earmarked for the construction of ice silos, handling units and bait warehouses, and the renovation of wharves.

Processing: Outmoded, often insalubrious plants

In the processing sector, the Quebec government (especially MAPAQ) has allocated substantial sums to expanding processing capacity and the quality of products.

Past initiatives have largely been concentrated in the Lower St. Lawrence/Gaspé and Magdalen Islands regions. Between 1983 and 1986, the federal and provincial governments earmarked nearly $270.0 million for promoting the development of fishing (Canada-Quebec Agreement, 1987-1990). Moreover, unlike the other regions, the fishing industry on the North Shore was unable to take advantage of the investment tax credit offered by the federal Minister of Revenue.

Graph 19:



More specifically, between 1983 and 1987, the Department of Fisheries and Oceans invested between $11 million and $17 million under the Special Recovery Capital Projects Program (SRCP Program), the Atlantic Development Program (ADP), and the Regional Fund (North Shore and Magdalen Islands).

2.4.2 Current situation and new policy guidelines

In 1987, the fishing industry enjoyed prosperity. Markets were highly favourable, demand was vigorous and prices were high. However, stocks of a number of traditional species are becoming depleted and several processing plants are experiencing problems of supply. Fishing fleets and processing plants are underutilized. For this reason, the federal and provincial governments have decided to redirect their initiatives.

Rationalizing fishing fleets

Government initiatives affecting fishing fleets will centre on species which are caught in limited quantities or not at all. For example, harvesting of whelks on the North Shore has recently been carried out by cod boats. In 1988, 219 fishing permits are available for whelk fishing. Consideration is also being given to harvesting capelin, mackerel, herring, soft shell clams, clams, scallops, spiny crab and edible crab, wild mussels, quahogs and lobster. In a number of sub-regions, these species offer worthwhile potential. Some 69 permits to catch mackerel using gillnets and purse seines, 38 to catch capelin using beach seines, and seven to catch herring were issued on the Middle and Lower North Shore. Moreover, two exploratory fishing permits covering soft shell clams, five covering lobster fishing and three covering shrimp fishing in the Esquiman channel were issued on the North Shore.

Increased use of existing processing facilities

In the processing sector, government initiatives have also focused on streamlining production, and are aimed at reducing supply problems and increasing the use of processing facilities.

Aquiculture: a new avenue for economic development

Aquiculture is one of the solutions advocated to increase the supply of a number of species, while maintaining natural stocks. It also makes it possible to create new jobs and contributes appreciably to the regional economy. Governments wish to promote commercial fish-breeding of species with worthwhile aquicultural and economic potential.

Despite the interest shown in mariculture, there are few if any commercial firms on the North Shore. All concerned parties agree on the region's maricultural potential, especially on the short-term potential of molluscs such as scallops and mussels. However, studies must be conducted before commercial development is encouraged.

2.5 Other Observations

Port facilities

There are 25 landing ports on the North Shore, of which 15 are on the Lower North Shore. The North Shore has nine handling units, five ice containers and two ice silos, and two bait warehouses; most of these facilities are located on the Lower North Shore.

Transport

Generally speaking, the North Shore is not accessible by road; the road and highway network ends at Havre-Saint-Pierre. Very rich fishing zones are located on the Lower North Shore; the state of the road causes additional delays and heavily penalizes the North Shore. To reduce losses, air freight must be used. There are eight airports on the North Shore, of which six are located on the Middle and Lower North Shore.

Education and research

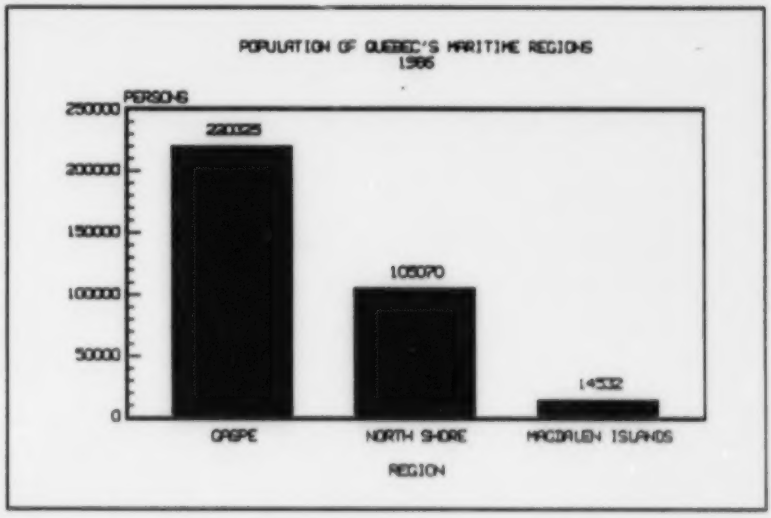
Cegeps are located in Sept-Iles and Baie-Comeau; students must leave the region to attend university. No research or educational institutions specializing in fishing are located on the North Shore.

3. COMPARISON OF QUÉBEC'S MARITIME REGIONS

3.1 Population

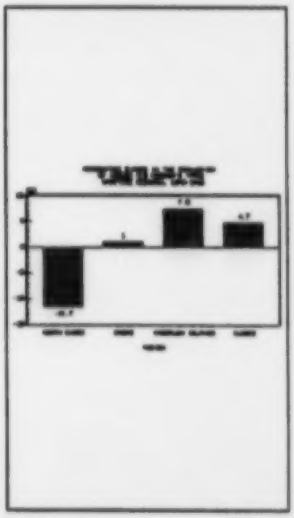
Graph 20:

Quebec's maritime regions account for barely 5.0 percent of the province's population. The Gaspé region accounts for 65.0 percent of the maritime population.



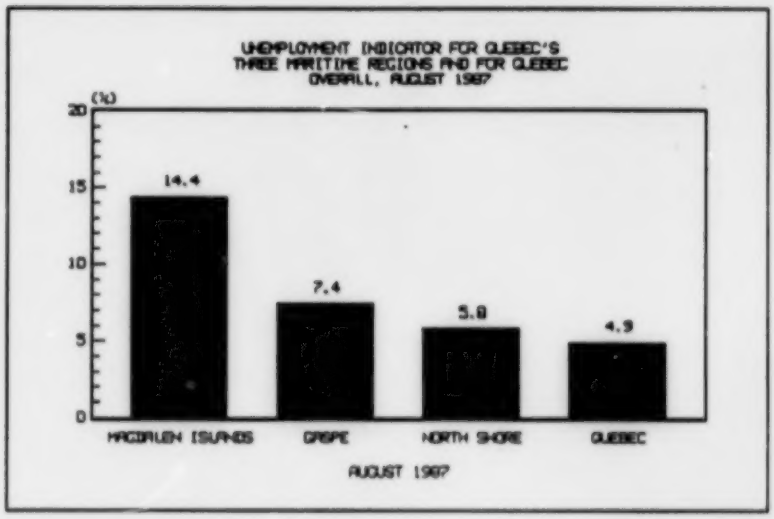
Graph 21:

Between 1976 and 1986, the population of Quebec grew by 4.7%; in the province's maritime regions, the population declined by nearly 5.0 percent. More than 11 000 people left these regions. The population of the North Shore region alone decreased by 11.7 percent; it is also in this region that the population is aging the most rapidly.



3.2 Labour Market

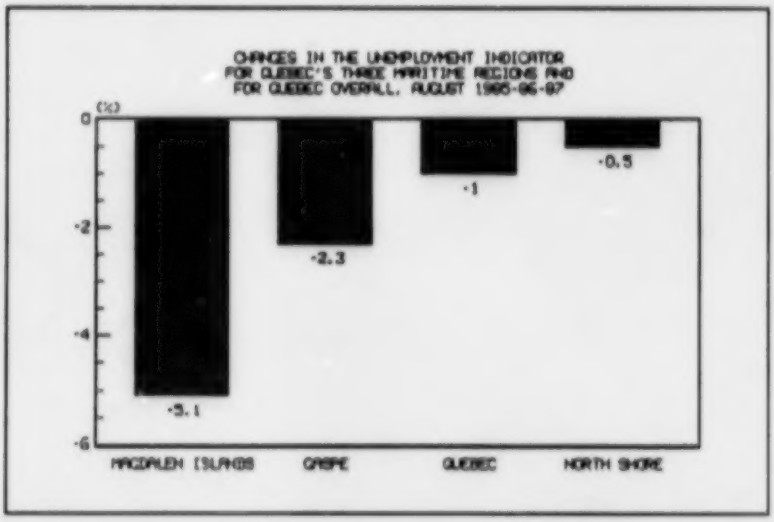
Graph 22:



The unemployment indicator is higher than the provincial average in all of Quebec's maritime regions. While the greatest number of unemployed are found in the Magdalen Islands, this region has, nonetheless, experienced the most marked improvement in its labour market.

Graph 23:

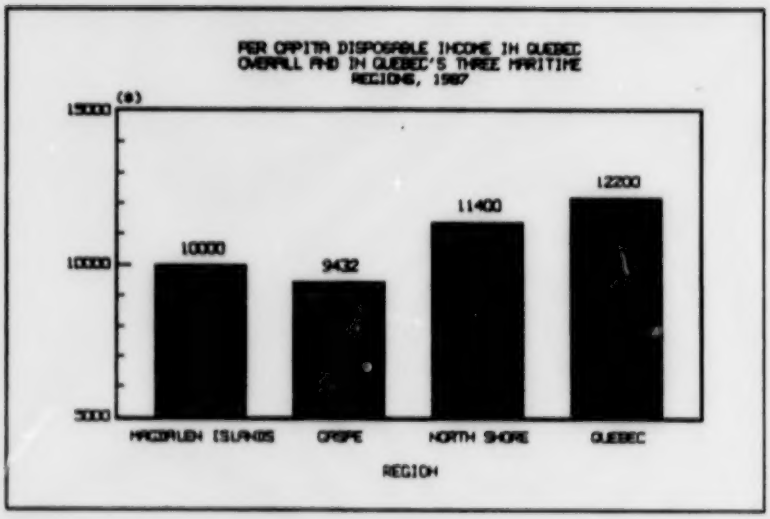
The North Shore is the only maritime region where the labour market has revived less rapidly than in Quebec as a whole.



3.3 Income

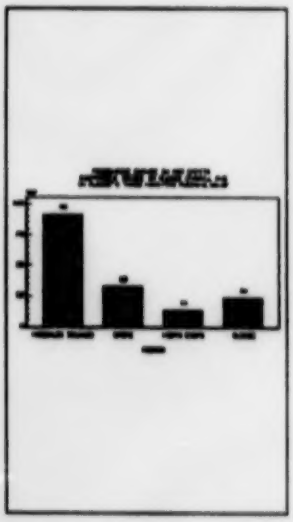
Graph 24:

Inhabitants of Quebec's maritime regions are at a disadvantage in terms of the labour market and income. Per capita disposable income in each region is below the provincial average. In the Gaspé region, the disparity is $2 746.



Graph 25:

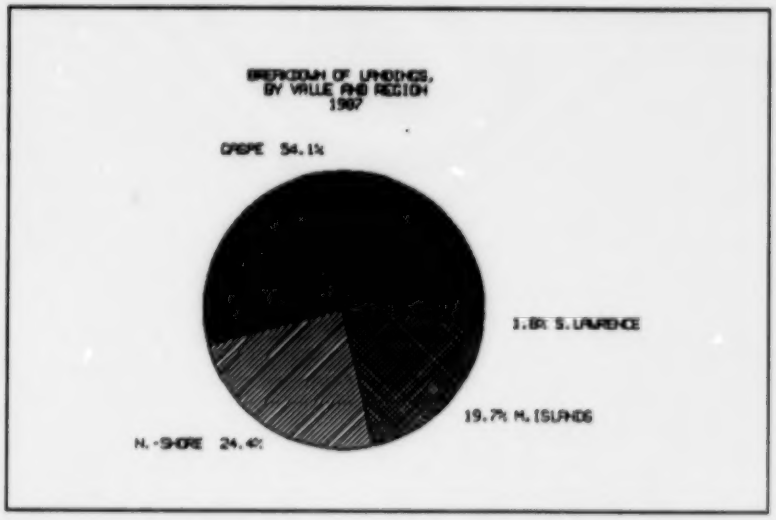
The situation appears to be improving. Except for the North Shore region, the per capita disposable income of residents of Gaspé and the Magdalen Islands appears to be increasing more rapidly than in Quebec as a whole. Since 1983, the per capita disposable income of residents of the Magdalen Islands has almost doubled.



3.4 Quebec Fishing Industry

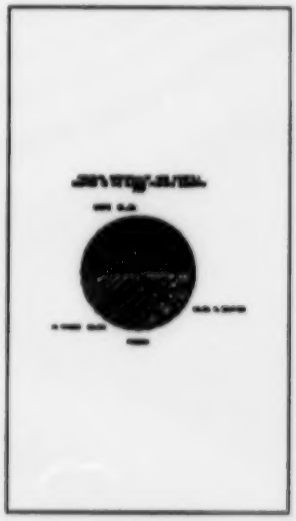
Graph 26:

The Gaspé region ranks first in terms of landings, by value, with 54.1 percent of the total, followed by the North Shore (24.4 percent), the Magdalen Islands (19.7 percent) and the St. Lawrence region (1.8 percent).



Graph 27:

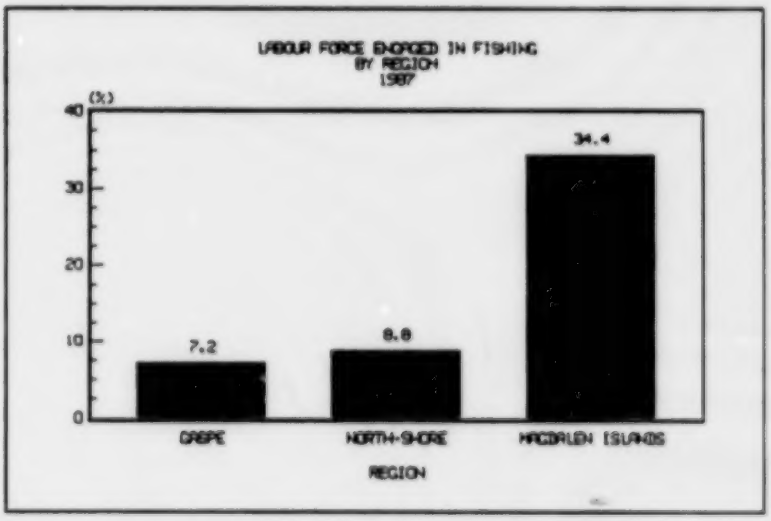
The Gaspé region accounted in 1987 for 51.3 percent of the 13 311 jobs created by the fishing industry in Quebec's maritime regions, followed by the North Shore (29.9 percent) and the Magdalen Islands (18.8 percent).



3.5 Importance of Fishing within the Regions

Contrary to popular belief, not all residents of Quebec's maritime regions are engaged in fishing. Fishing is more extensive in some sub-regions than in others, with wide variations from one region to the next.

Graph 28:



In the Magdalen Islands, 34.4 percent of the labour force is engaged in the primary, secondary and tertiary sectors of the fishing industry; on the North Shore, 7.2 percent; and in the Gaspé region, 8.8 percent.

CONCLUSION

It is not easy for us to draw a conclusion to such a study. Even though it is common practice to outline a brief analysis and general directives, it would be presumptuous to do so in this case. Under these considerations, it belongs to each reader to make his own conclusion based on the analysis of the data.

For those who would like to extend further the exercice, we remind you that there are two similar documents available, one covering the North Shore Region and the other covering the Magdalen Islands Region. A statistical complement is also available.

Appendix 1

Profiles of Various North Shore Fishing Fleets, 1987

Fleet	Number of Vessels	Average Age of Owner	Average Age of Fleet	Value of Landings	Owner's Average Earnings*
Trawlers	4	37	3	446 188	149 282
Shrimpers	8	42	16	3 003 360	175 615
Longliners (35'	435	40	6	3 119 329	3 222
Longliners (35'-50')	21	38	16	1 049 241	46 951
LNS crabbers	85	42	7	6 606 348	40 143
Est./MNS crabbers	45	43	8	7 335 185	124 388
Lobster boats	76	42	6	800 812	16 800
Scallopers	13	38	10	1 655 066	43 384
Whelk boats	45	39	6	434 981	-
TOTAL:	732			24 450 510	

*Represents average cash income for a fleet in Quebec.
Source: DFO, Economic Services Branch, Quebec.

Appendix 2

Glossary

ADP:

Atlantic Development Program.

Cash income:

Cash income is established by only taking into account funds actually received and spent during the fiscal year. It provides information on financial performance during the year in question, and represents the captain-owner's pre-tax salary.

Employee in the primary sector of the fishing industry:

Any person working on a fishing vessel, i.e a fisherman or his helper.

Employee in the secondary sector of the fishing industry:

Any person involved in fish processing.

Employee in the tertiary sector of the fishing industry:

Any person working for an agency providing services to the fishing industry.

ERDA:

Economic and Regional Development Agreement.

Estuary and Middle North Shore crabbers:

The fleet of Estuary and Middle North Shore crabbers consists of vessels holding a permit to catch snow crabs in management zones 16 and 17, and whose main source of income is the sale of crab.

Fishing fleet:

All fishing vessels from a region which have been active during a given year.

Labour force:

The number of individuals in the population 15 and over either working or unemployed.

Lobster boats:

The fleet of lobster boats consists of vessels whose main source of income is derived from catching lobsters. An exception is made with respect to vessels without a permit but whose main source of income is the sale of lobster; they are also deemed to be lobster boats.

Longliners 50 feet or more in length:

The fleet of longliners 50 feet or more in length consists of vessels holding a permit to catch fish with fixed lines (gillnets, longlines, weirs and cod traps), whose main source of income is derived from the use of such gear and whose overall length is 50 feet or more.

Longliners between 35 feet and 50 feet in length:

The fleet of longliners between 35 feet and 50 feet in length consists of vessels holding a permit to catch fish with fixed lines (gillnets, longglines, weirs and cod traps), whose main source of income is derived from the use of such gear and whose overall length is between 35 feet and 49 feet 11 inches.

Longliners 35 feet or less in length:

The fleet of longliners 35 feet or less in length consists of vessels holding a permit to catch fish with fixed lines (gillnets, longlines, weirs and cod traps), whose main source of income is derived from the use of such gear and whose overall length does not exceed 34 feet 11 inches.

Lower North Shore crabbers (LNS crabbers):

The fleet of Lower North Shore crabbers consists of vessels holding a permit to catch snow crabs in management zones 13, 14 and 15 (from Kégaska to Lourdes de Blanc-Sablon), whose main income is derived from the sale of crab. An exception is made with respect to vessels without a permit, whose main source of income is the sale of crab caught in this zone; such vessels are also deemed to be Lower North Shore crabbers.

MLI:

Maurice Lamontagne Institute.

Per capita disposable income (disposable personal income):

Gross income of the population
Total population

Population able to work:

Population between 15 and 64.

Profit margin:

The profit margin of fish processing plants is established by calculating the difference between the price per kilogram of the production of a type of finished product and the price of the raw material used in manufacturing the product. Thus, the profit margin is the amount available to the producer to pay his other variable and fixed costs, and make a profit from production activities.

Regional Fund:

Regional Fund.

Scallopers:

The scalloper fleet consists of vessels whose main source of income is the sale of scallops.

Scottish seiner:

The fleet of Scottish seiners consists of vessels holding a permit to catch groundfish with mobile gear, primarily using the Scottish seine, and whose main source of income is the sale of groundfish.

Southwestern Gulf crabbers:

The fleet of southwestern Gulf crabbers consists of vessels holding a permit to catch snow crabs in management zone 12, and whose main source of income is the sale of crab.

SRCP Program:

Special Recovery Capital Projects Program.

Trawlers:

The fleet of trawlers consists of vessels holding a permit to catch groundfish using mobile gear. Shrimpers and Scottish seiners are excluded from this fleet.

Unemployment indicator:

The indicator is always below the standard unemployment rate; it makes possible the comparison of the proportion of unemployed in various regions where the unemployment rate is not available. The unemployment indicator is estimated in the following manner:

$$\frac{\text{Regular unemployment insurance beneficiaries}}{\text{Population able to work}} \times 100$$

DIVISION DES SERVICES ECONOMIQUES

ECONOMIC SERVICES DIVISION

Ministère des Pêches et des Océans - Région du Québec
Department of Fisheries and Oceans - Quebec Region

(1989-02-13)

Liste des rapports d'étude		List of studies	
1982		**1982**	
82-1	Répertoire des programmes d'aide gouvernementale à l'industrie des pêches au Québec: 101 pages (épuisé)	82-1	-
1983		**1983**	
83-1	Processus d'évaluation et de prise de décision pour l'attribution des permis de pêche pour les bateaux de 45 pieds et plus: Document de travail: 13 pages: (non disponible).	83-1	-
83-2	Répertoire des programmes d'aide gouvernementale à l'industrie des pêches au Québec: 103 pages (épuisé).	83-2	-
1984		**1984**	
84-1	Répertoire des programmes d'aide gouvernementale destinés à l'industrie des pêche maritimes du Québec: ISBN 0-662-92919-5; 67 pages (épuisé).	84-1	Guide to Government Assistance Programs for the Québec Marine Fishing Industry: ISBN 0-662-92919-5; 68 pages (out of print).
84-2	Simulation comptable du pêcheur côtier; 15 pages (épuisé).	84-2-2	Fisherman's Accounting Exercise; 15 pages; (out of print).
84-3	Simulation comptable du pêcheur hauturier; 15 pages (épuisé).		
84-4	Le registre comptable du pêcheur; 50 pages.	84-4	Fisherman's Accounting Register; 50 pages; (out of print).

1985

85-1 L'industrie des pêches maritimes du Québec: Description statistique; ISBN 0-662-93183-1; 184 pages.

85-2 Répertoire des programmes d'aide gouvernementale destinés à l'industrie des pêches maritimes du Québec; ISBN 0-662-93438-5; 77 pages.

85-3 Etude de rentabilité de la flotte de pêche au crabe du Québec: 1984; 47 pages.

85-4 Etude de rentabilité du secteur de la transformation du crabe des neiges au Québec: 1984; 38 pages.

85-5 Coûts et revenus des bateaux de pêche sélectionnés du Québec: 1984; 113 pages.

85-6 Etude de rentabilité: crabiers côtiers-Estuaire du Saint-Laurent et moyenne Côte-Nord: 1984; 68 pages.

85-7 Description de la flotte de pêche du Québec: 1984; 51 pages; (épuisé).

85-8 Impact de l'addition de nouveaux permis semi-hauturiers dans la pêche au crabe du sud-ouest du Golfe; Document de travail; 25 pages.

1985

85-1 The Maritime Fisheries Industry of Québec: Statistical Description; ISBN 0-662-93183-1; 184 pages (out of print).

85-2 Guide to Government Assistance Programs for the Québec Marine Fisheries Industry; ISBN 0-662-93438-5; 70 pages; (out of print).

85-3 Study on the Viability of the Quebec Crab Fleet: 1984; 47 pages.

85-4 Economic Performance for the Crab Processing in Québec: 1984; 35 pages.

85-5 Costs and Earnings for Selected Fishing Boats in Québec: 1984; 113 pages.

85-6 -

85-7 -

85-8 -

1986

Etude de rentabilité des composantes de l'industrie des pêches maritimes québécoises liées aux chalutiers de moins de 100 pieds: 1985

86-1 Volume 1 Les crevettiers; ISBN-0-662-93853-4; 71 pages;

86-2 Volume 2 Les chalutiers exploitant les poissons de fond; ISBN-0-662-93857-7; 83 pages.

86-3 Volume 4 Les usines de transformation des poissons de fond; ISBN-0-667-94087-3; 81 pages.

1986

Profitability Study on Various Components of Québec Maritime Fishing Industry Which are Associated with Trawlers under 100 feet in length: 1985

86-1 Volume 1 Shrimp Trawlers; ISBN-0-662-24157-2; 71 pages.

86-2 Volume 2 Groundfish Trawlers; ISBN-0-662-93857-7; 83 pages.

86-3 Volume 4 Groundfish Plants; ISBN-0-667-94087-3; 81 pages.

	Les usines de transformation de produits marins au Québec	Québec Marine Processing Plants
86-4	Volume 1 Répertoire des producteurs; ISBN-0-662-93914-X; 95 pages.	Volume 1 Directory of Producers; ISBN-0-662-93914-X; 95 pages.
86-5	Volume 2 Evaluation des capacités de transformation; ISBN-0-662-93915-8; 28 pages.	Volume 2 Assessment of Processing Capacity; ISBN-0-662-93915-8; 28 pages.
86-6	Evaluation économique de la technique de barratage sous vide des poissons de fond; 21 pages.	-
86-7	Analyse de la diminution du stock de morue 4RS-3Pn sur les secteurs primaire et secondaire; Document de travail (non disponible); 38 pages.	-
86-8	Description de la flotte de pêche du Québec: 1985; 69 pages; (épuisé)	-
86-9	Coûts et revenus des bateaux de pêche du Québec: 1985; ISBN-0-662-94000-1; 140 pages.	Costs and Earnings of Québec Fishing Vessels: 1985; ISBN-0-662-15063-5; 140 pages.
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